

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Amr M. MOHSEN

Serial No.: 10/052,671

Publ. No. 20020100010

Filed: January 17, 2002

For: Field Programmable Printed Circuit Board

Atty. Docket No.: 003921.00248

Group Art Unit: 2128

Examiner: Hugh M. Jones

Confirmation No. 6141

INFORMATION DISCLOSURE STATEMENT

The Honorable Commissioner for Patents
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

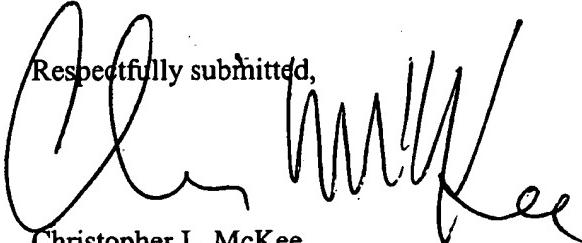
Sir:

Pursuant to 37 C.F.R. §1.56, the attention of the U.S. Patent and Trademark Office is hereby directed to the references listed in the attached Forms PTO/SB/08. The references listed in standard type-face are references cited and made of record in parent application 08/632,298, filed April 12, 1996, from which priority is claimed. Accordingly, pursuant to 37 C.F.R. §1.98(d), a copy of these references is omitted. The references appearing in bolded type-face were not made of record in the parent application. Pursuant to the Office's October 12, 2004 OG Notice, it is understood that 37 C.F.R. §1.98 no longer requires submission of a copy of each cited U.S. patent and published patent application, unless such copies are specifically required by the Office. Accordingly, a copy of the bolded U.S. patents and published applications is also omitted. A copy of the other listed references appearing in bolded type-face is enclosed.

Applicant submits this information so that the Patent and Trademark Office may, in the first instance, determine any materiality thereof to the claimed invention. It is respectfully requested that the information be formally considered during the prosecution of this application,

and that the listed references appear among the "References Cited" on any patent to issue herefrom.

The present Information Disclosure Statement is being filed after the mailing date of the first Office Action on the merits, but before a Final Office Action or Notice of Allowance. Pursuant to 37 CFR §1.97(c)(2), this Statement is accompanied by the \$180.00 fee specified in 37 C.F.R. §1.17(p). If there is any discrepancy in the fee, the Commissioner is authorized to charge our Deposit Account No. 19-0733.

Respectfully submitted,

Christopher L. McKee
Registration No. 32,384

BANNER & WITCOFF, LTD.,
1001 G Street, N.W., 11th Floor
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Date: 3/31/06

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

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of

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Complete if Known

Application Number	10/052,671
Filing Date	January 17, 2002
First Named Inventor	Amr M. MOHSEN
Art Unit	2128
Examiner Name	Hugh M. Jones

Attorney Docket Number 003921.00248

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
XJ		3,849,872	11/1974	Hubacher	
		3,867,759	02/25/75	Siefker	
		4,124,899	11/07/1978	Birkner et al.	
		4,146,902	03/1979	Tanimoto et al.	
		4,183,460	01/1980	Yuen et al.	
		4,241,307	12/1980	Hong	
		4,245,273	01/1981	Feinberg et al.	
		4,327,355	04/1982	Genter et al.	
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		4,357,703	11/1982	Van Brunt	
		4,433,331	02/21/1984	Kollaritsch	
		4,441,075	04/1984	McMahon	
		4,455,495	06/1984	Masuhara et al.	
		4,458,197	07/03/1984	Robinson	
		4,458,297	07/1984	Stopper et al.	
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		4,467,400	08/1984	Stopper	
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XJ		4,509,008	04/1985	Das Gupta et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
XJ		EP 177,261 A2	04/09/1986	Xilinx, Inc.		
		EP 204,034 A2	12/1986			
		EP 310,357 A3	04/1989			
		EP 329,018 A3	08/1989			
		EP 0 335 281 A2	10/04/1989			
XJ		EP 0 481 703 A2	04/22/1992			

Examiner Signature

H. Jones

Date Considered

9/22/05

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Sheet 2 of 7

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		Number - Kind Code ² (if known)			
		4,631,686	12/23/1986	Ikawa et al.	
		4,638,246	01/1987	Blank et al.	
		4,649,413	03/1987	Kelly	
		4,697,241	09/1987	Lavi	
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		4,817,093	03/1989	Jacobs et al.	
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		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
		EP 0 518 701 A2	12/16/1992			
		JP UM 53-141353	09/12/78			Partial
		JP 59-161839	09/1984			
		WO 85/03804	08/1985			
		WO 90/04233	04/1990			
		JP 58-117,469	07/13/1983			Partial

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		Number - Kind Code ² (if known)			
		4,826,776	05/1989	Brandt et al.	
		4,833,402	05/1989	Boegh-Petersen	
		4,840,924	06/1989	Kinbara	
		4,847,732	07/1989	Stopper et al.	
		4,855,253	08/1989	Weber	
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		4,866,432	09/12/1989	Goetting	
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		4,961,053	10/1990	Krug	
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		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
		JP 59-182877	12/05/1984			Partial
		JP 62-91469	06/11/1987			Partial
		JP 62-159060	07/15/1987			Partial
		JP 64-50372	02/27/1989			Partial
		GB 2 137 811 A	10/10/1984	International Rectifier Corp.		
		JP 63-49831	02/03/1988	Matsushita Electric Industrial Co., Ltd.		
		GB 2 180 382 A	03/25/1987	Pilkington Micro-Electronics Limited		
		WO 87-02827	05/07/1987	4C Electronics, Inc.		

Examiner Signature

H. Jones

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4 of 7

<i>Complete If Known</i>	
<i>Application Number</i>	10/052,671
<i>Filing Date</i>	January 17, 2002
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<i>Art Unit</i>	2128
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<i>Attorney Docket Number</i>	003921.00248

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		Number - Kind Code ² (if known)				
		4,979,138		12/18/1990	Arrathoon	
		5,015,885		05/14/1991	EI Gamal et al.	
		5,036,473		07/1991	Butts et al.	
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		5,448,496		09/05/1995	Butts et al.	
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		5,457,410		10/1995	Ting	
		5,504,354		04/1996	Mohsen	
		5,596,743		01/1997	Bhat et al.	
		5,612,891		03/18/1997	Butts et al.	
		5,657,241		08/12/1997	Butts et al.	
		5,661,662		08/26/1997	Butts et al.	
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		5,661,409		08/1997	Mohsen	
		5,654,564		08/1997	Mohsen	
		5,377,124		12/27/1994	Mohsen	
		5,544,069		08/06/1996	Mohsen	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT				<i>Application Number</i>	10/052,671
(Use as many sheets as necessary)				<i>Filing Date</i>	January 17, 2002
				<i>First Named Inventor</i>	Amr M. MOHSEN
				<i>Art Unit</i>	2128
				<i>Examiner Name</i>	Hugh M. Jones
Sheet	5	of	7	<i>Attorney Docket Number</i>	
003921.00248					

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials *	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
<i>MJ</i>		Barber et al., "A 64 x 17 Non-Blocking Cross Point Switch," 1988 IEEE Int'l. Solid-State Circuits Conf., 18 Feb. 1988, pp. 116, 117 and 142.			
		Bogdan, "An Electrically Programmable Silicon Circuit Board," <u>BUSCON/87 West Proceedings and SYSCON West, 1987</u> , pp. 472 - 476.			
		Colbry et al. "High Performance Crosspoint Switch Implemented in CMOS on AVP," <u>Procs. IEEE Int'l. Solid-State Circ. Conf.</u> , 5 - 8 Oct. 1987, pp. 113 - 116.			
		Donnell, "Crosspoint Switch: A PLD Approach," <u>Digital Design</u> , July 1986, pp. 40 - 42 and 44.			
		Fiduccia et al, "A Linear-Time Heuristic for Improving Network Partitions," 19th ACM/IEEE Design Automation Conf., June 14 - 16, 1982, pp. 175 - 181, reprinted in <u>Compo Paps. Design Automation Conf.</u> , 1988, pp. 241 - 247.			
		Guo et al. "A 1024 Pin Universal Interconnect Array With Routing Architecture," <u>Proceedings of the Custom Integrated Circuits Conference</u> , 3 - 6 May 1992, pp. 4.5.1 - 4.5.4.			
		Hantsch, "The PIM: A Progranunable Interconnection Module," <u>IEE Colloquium Dig. Colloquium on IC Design-Gate Arrays</u> , 21 Nov. 1984, pp. 8.1- 8.4.			
		Hyden et al, "Silicon Circuit Boards: Off-the Shelf Convenience," <u>Elec. Pack. & Prod.</u> , Apr. 1988, pp. 70 - 74.			
		Lauther, "A Min-Cut Placement Algorithm for General Cell Assemblies Based on a Graph Representation," 16th Design Automation Conf., 25 - 27 June 1979, pp. 1-10, reprinted in <u>Compo Paps. Design Automation Conf.</u> , 1988, pp. 182 - 191.			
		Lee et al. "A New Global Router for Row-Based Layout," IEEE Int'l. Cont: on CAD, 7 - 10 Nov. 1988, pp. 180 - 183.			
		Lin et al. "A Detailed Router Based on Simulated Evolution," IEEE Int'l. Conf. on CAD, 7 - 10 Nov. 1988, pp. 180 - 183.			
		Marek-Sadowska, "Two Dimensional Router for Double Layer Layout," 22nd ACM/IEEE Design Automation Conf., 23 - 26 June 1985, pp. 117 - 123.			
<i>MJ</i>		Quinnell, "Digital Switches Provide Bus Connections With No Additional Gate Delays," <u>EDN</u> , 18 July 1991, page 64.			

Examiner Signature	<i>H. Jones</i>	Date Considered	<i>9/27/06</i>
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Sheet	6	of	7	<i>Attorney Docket Number</i>	003921.00248

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		Swager, "Crosspoint-switch ICs Enter Digital Domain," EDN, 16 Feb. 1989, pp. 76 - 86.		
		Tzeng et al, "Codar: A Congestion-Directed General Area Router," IEEE Int'l. Conf. on CAD, 7 - 10 Nov. 1988, pp. 30 - 33		
		Wooley et al, "Active Substrate System Integration," IEEE, July 1987, pp. 468 - 471.		
		"Fast Digital Switches Route Bus Signals," EEPN, undated, 1 p.		
		"Gallium Arsenide 64 x 64 Crosspoint Switch," preliminary data sheet, Vitesse Semiconductor Corporation, Feb. 1991, pp. 1 - 10.		
		"Logically Controlled Chip Interconnection Technique," IBM Tech. Discl. Bull., Vol. 32, No. 3B, Aug. 1989, pp. 294 - 299.		
		"AD75019 16 x 16 Crosspoint Switch Array," data sheet, Analog Devices, 1991, 4 pp.		
		HP-12C Owner's Handbook and Problem Solving Guide, Hewlett-Packard Company, Palo Alto, CA, 1981, pp. 220-221		
		IBM Tech. Discl. Bul., "Logically Controlled Chip Interconnection Technique," Aug. 1989, Vol. 32, No. 3B, pp. 294-299		
		Brown, S. et al., "A Detailed Router for Field Programmable Gate Arrays" pp. 382-85		
		Greene, J. et al., "Segmented ChannelRouting," 27th ACM/IEEE Design Automation Conference, June 24-28, 1990, pp. 567-72		
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		Wynn, Pardner, "Designing With Logic Cell Arrays," p. 1-9.		
		Wynn, Pardner, "In-Circuit Emulation for ASIC-Based Designs," VLSI Systems Design, October 1986, pp. 38-45		
		Agrawal, P. et al., "Architecture and Design of the MARS Hardware Accelerator," 24th ACM/IEEE Design Automation Conference, 1987, pp. 101-07		
		Blodgett, Albert, "A Multilayer Ceramic Multichip Module," IEEE Transactions on Components, Hybrids and Manufacturing Technology, vol. CHMT-3, No.4, December 1980, pp. 634-37		
		Seraphim, D.P. and Feinberg, I., "Electronic Packaging Evolution in IBM," IBM J. Res. Develop., Vol. 25, No. 5, September 1981, pp. 617-29		

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Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		<i>Application Number</i>		10/052,671	
		<i>Filing Date</i>		January 17, 2002	
		<i>First Named Inventor</i>		Amr M. MOHSEN	
		<i>Art Unit</i>		2128	
		<i>Examiner Name</i>		Hugh M. Jones	
Sheet	7	of	7	Attorney Docket Number	003921.00248

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ²
<i>HJ</i>		Palesko, C. and Akers L., "Logic Partitioning for Minimizing Gate Arrays," IEEE Transactions on Computer Aided Design of Integrated Circuits and Systems, Vol. CAD-2, No. 2, April 1983, pp. 117-21		
<i>HJ</i>		Stroud, C. and Munoz, R., :CONES: A System for Automated Synthesis of VLSI and Programmable Logic from Behavioral Models," IEEE International Conference on Computer Aided Design, November 11-13, 1986, pp. 428-31		
		The Programmable Gate Array Design Handbook, Xilinx, Inc., 1986		
		Microelectronics Packaging Handbook, 1989		
		Circuits, Interconnections and Packaging for VLSI, 1990		
		Handbook of Microelectronics Packaging and Interconnection Technologies, Chapter 1, 1985		
		Handbook of Microelectronics Packaging and Interconnection Technologies, Chapter 7, 1985		
		Kit Offers Instant Insights, Electronics, January 23, 1975, p. 70		
		Horowitz and Hill, The Art of Electronics, Chapter 12 [copyright 1980 and 1989]		
<i>HJ</i>		"Synthesis of Logic Functions on an Array of Integrated Circuits," Contract Report AFCRL-66-298, UNIVAC Division of Sperry Rand Corp., Blue Bell, PA, Oct. 31, 1965.		

Examiner Signature	<i>H. Jones</i>	Date Considered	<i>9/27/05</i>
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Listing of Related Litigation Papers Submitted Responsive to Request for Information

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

1

of

2

Complete If Known

Application Number	10/052,671
Filing Date	January 17, 2002
First Named Inventor	Amr M. MOHSEN
Art Unit	2128
Examiner Name	Hugh M. Jones
Attorney Docket Number	003921.00248

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
MJ		U.S. District Ct. (N.D. Cal.) Civil Docket for Case # 3:04-cv-01522-EDL (<i>Aptix Corp. v. Willmore et al.</i>)	
		Complaint filed in <i>Aptix Corp. v. Willmore et al.</i>	
		U.S. District Ct. (N.D. Cal.) Civil Docket for Case # 3:98-cv-00762-WHA (<i>Aptix Corp. et al. v. Quickturn Design Systems</i>)	
		Findings of Fact and Conclusions of Law After Evidentiary Hearing on Motion for Terminating Sanctions in <i>Aptix Corp. v. Quickturn Design Systems, Inc.</i> , Case No. 98-00762, 2000 WL 852813 (N.D. Cal. 2000)	
		<i>Aptix Corp. v. Quickturn Design Systems, Inc.</i> , 13 Fed.Appx. 972 (Fed. Cir. 2001) (Rule 36 affirmation)	
		<i>Aptix Corp. v. Quickturn Design Systems, Inc.</i> , 269 F.3d 1369 (Fed. Cir. 2001)	
		<i>Aptix Corp. v. Quickturn Design Systems, Inc.</i> , 148 Fed.Appx. 924 (Fed. Cir. 2005)	
		Joint Claim Construction Statement, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 45)	
		<i>Aptix's and Meta's Memorandum on Claim Construction</i> , in <i>Aptix Corp. v. Quickturn Design Systems, Inc.</i> (Docket # 266)	
		Declaration of Dr. Harry L. Tredennick III in Support of Plaintiffs' Memorandum on Claim Construction in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 268)	
		Response by Aptix and Meta to Quickturn's Memorandum on Claim Construction, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 297)	
MJ		Tentative Ruling After Claim Construction Hearing, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 314)	

Examiner Signature

Date Considered

9/27/00

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Application Number		10/052,671	
		Filing Date		January 17, 2002	
		First Named Inventor		Amr M. MOHSEN	
		Art Unit		2128	
		Examiner Name		Hugh M. Jones	
Sheet	2	of	2	Attorney Docket Number	003921.00248

<i>MJ</i>	Aptix's Memorandum Re Comparison of Claims of '638 and '069 Aptix Patents, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 316)	
	Final Ruling After Claim Construction Hearing, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 352)	
	Quickturn's Closing Brief for Evidentiary Hearing, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 456)	
	Plaintiff Aptix Corporation's Post-Hearing Brief, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 457)	
	Meta and Mentor Graphics' Post-Evidentiary Hearing Brief, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 459)	
	Notice of Motion and Motion for Summary Judgment that U.S. Patent 5,544,069 is Invalid for Failure to Comply with 35 U.S.C. §112, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 475)	
	Declaration of Jeffrey A. Miller in Support of Quickturn's Motion for Summary Judgment that U.S. Patent 5,544,069 is Invalid for Failure to Comply with 35 U.S.C. §112, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 478)	
	Plaintiffs' Notice of Motion and Motion for Summary Judgment on Quickturn's (1) Inequitable Conduct Defense; (2) Inequitable Conduct Counterclaim; and (3) Derivation Defense; Points and Authorities in Support, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 480)	
	Quickturn's Petition to File its Motion Re: Derivation and Memo in Support Thereof One Day Late, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 485)	
<i>MJ</i>	[Proposed] Order Granting Quickturn's Motion for Summary Judgment of Invalidity of Mohsen U.S. patent No. 5,544,069 Under 35 U.S.C. §102(f), in <i>Aptix Corp. v. Quickturn Design Systems</i>	

Examiner Signature	<i>H. Jones</i>	Date Considered	9/27/06
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[Handwritten signature]
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Amr M. MOHSEN

Serial No.: 10/052,671
Publ. No.: 20020100010
Filed: January 17, 2002
For: Field Programmable Printed Circuit Boards

Atty. Docket No.: 003921.00248

Group Art Unit: 2128

Examiner: Hugh M. Jones

Confirmation No. 6141

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

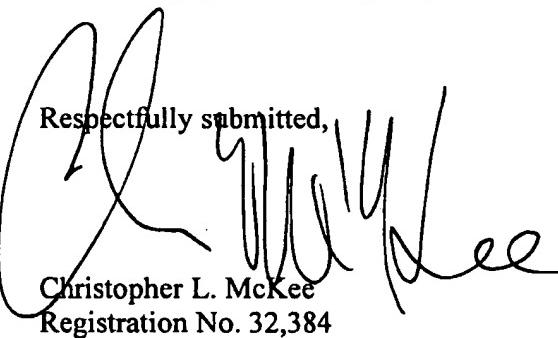
The Honorable Commissioner for Patents
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Sir:

Pursuant to 37 C.F.R. §1.56, the attention of the U.S. Patent and Trademark Office is hereby directed to the reference listed in the attached Form PTO/SB/08. This reference was cited in a European Search Report completed January 6, 2006 and issued in a corresponding European Patent Application. Pursuant to the Office's October 12, 2004 OG Notice, it is understood that 37 C.F.R. §1.98 no longer requires submission of a copy of each cited U.S. patent and published patent application, unless such copies are specifically required by the Office. Accordingly, a copy of the U.S. patents and published applications is omitted. A copy of the European Search Report is enclosed.

Assignee submits this information so that the Patent and Trademark Office may, in the first instance, determine any materiality thereof to the claimed invention. It is respectfully requested that the information be formally considered during the prosecution of this application, and that the listed references appear among the "References Cited" on any patent to issue herefrom.

Pursuant to 37 C.F.R. §1.97(e)(1), Assignee states that, on information and belief, each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Information Disclosure Statement. As mentioned above, the cited European Search Report is dated January 6, 2006. Accordingly, no fee is believed due. However, in the event that a fee is due, authorization is hereby given to charge such fee to our deposit account number 19-0733.


Respectfully submitted,
Christopher L. McKee
Registration No. 32,384

BANNER & WITCOFF, LTD.
1001 G Street, N.W., 11th Floor
Washington, D.C. 20001-4597
(202) 824-3000

Date: April 6, 2006

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 1

Substitute for form 1449A/PTO				Complete If Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	10/052,671
				Filing Date	January 17, 2002
				First Named Inventor	Amr M. MOHSEN
				Art Unit	2128
				Examiner Name	Hugh M. Jones
Sheet	1	of	1	Attorney Docket Number	003921.00248

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)			

Examiner Signature		Date Considered	9/27/05
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